P-750 XSTOL®

SPECIFICATION

(DETAILS SUBJECT TO CHANGE WITHOUT NOTICE)

INTRODUCTION

This Specification and Description is published for the purpose of providing general information for the evaluation of the design, performance and equipment of the Pacific Aerospace P-750 XSTOL aircraft. Should more detailed data be required, it can be obtained by contacting:

Pacific Aerospace Limited
Private Bag 3027
Hamilton 3240
New Zealand

Tel: +64 7 843 6144
Fax: +64 7 843 6134
Web: www.aerospace.co.nz
Email: aircraft@aerospace.co.nz

Also included is the Pacific Aerospace warranty applicable to the P-750 XSTOL aircraft. In the event of any conflict or discrepancy between this document and the basic purchase agreement to which it may be appended, terms specified in the basic purchase agreement govern.

Due to the time span between the date of this Specification and Description and the scheduled delivery date of the aircraft, Pacific Aerospace Limited reserves the right to revise the Specification and Description whenever occasioned.

CONTENTS

SECTION 1 : GENERAL DESCRIPTION

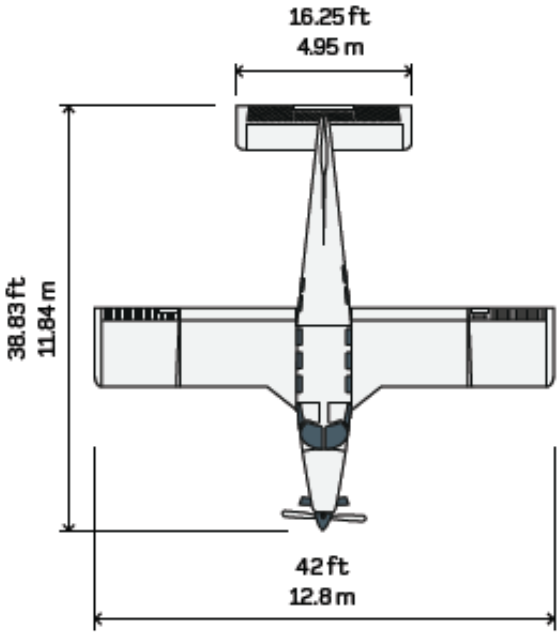
The Pacific Aerospace P-750 XSTOL is an unpressurized single-engine low wing turbine aircraft with fixed landing gear. The aircraft can accommodate up to 10 seated persons including a minimum crew of one, or up to 17 skydivers. An optional sub-dividable single compartment Cargo Pod is available for additional large luggage / freight hauling capability.

The power plant is a Pratt and Whitney of Canada PT6A-34 turbine engine mounted in the nose of the aircraft fuselage.

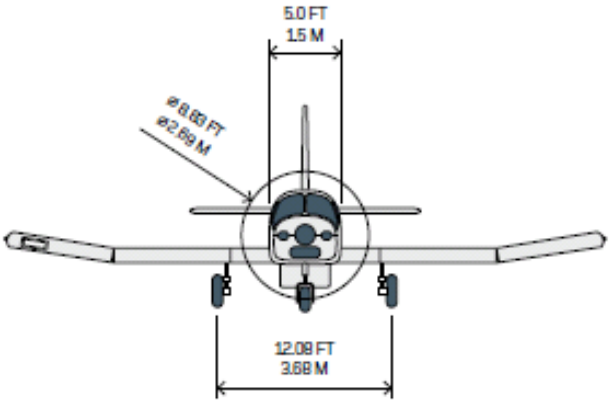
Certification basis is to U.S. FAA FAR Part 23 requirements – day, night, VFR and Single Pilot IFR when equipped with the appropriate options. Export certification requirements may require additional equipment and charges.

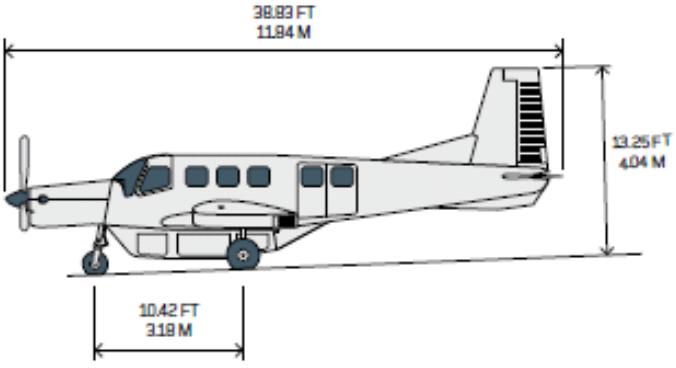
SECTION 2 : LEADING PARTICULARS

External Dimensions

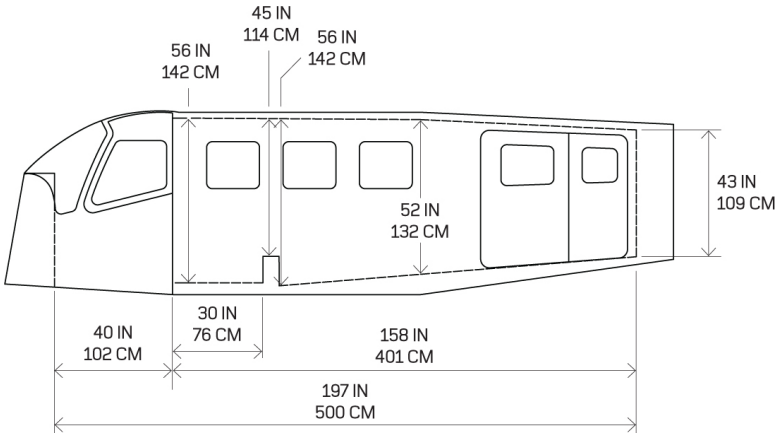


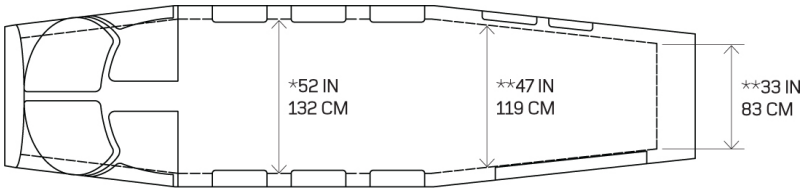
AREAS		
WING GROSS	305.00 FT^2	28.34 M^2
NETT	267.80 FT^2	24.88 M^2
FLAPS	31.75 FT^2	2.95 M^2
AILERONS	21.94 FT^2	2.04 M^2
TAILPLANE	33.64 FT^2	3.13 M^2
ELEVATOR	27.92 FT^2	2.59 M^2
FIN	19.40 FT^2	1.80 M^2
RUDDER	11.70 FT^2	1.09 M^2

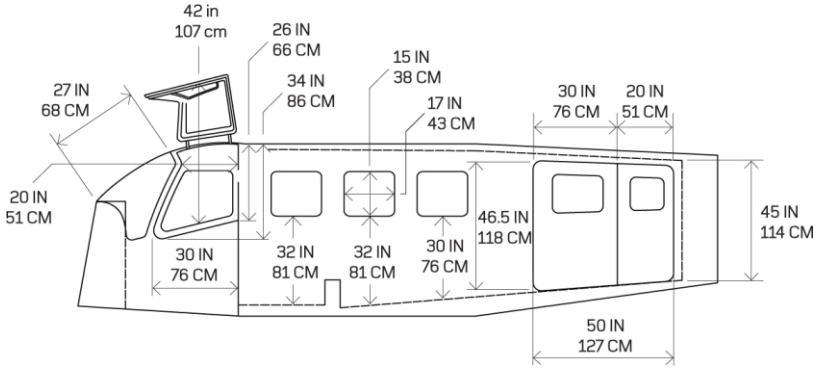


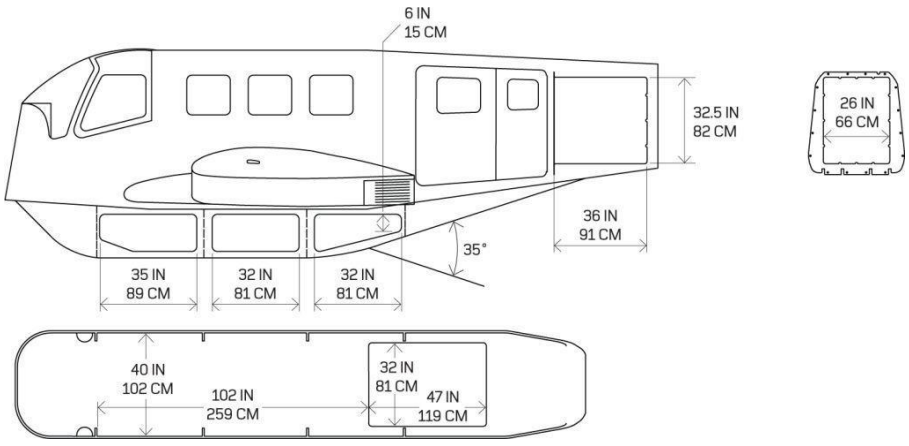


Internal Dimensions









Engine

NUMBER OF ENGINES	1
MANUFACTURER	Pratt & Whitney, Canada, Incorporated
ENGINE MODEL NUMBER	PT6A-34
ENGINE TYPE	Free turbine, propulsion engine incorporating a multi-stage compressor, single stage compressor turbine, and independent single stage power turbine driving the output shaft through integral planetary gearing. A singular annular combustion chamber, 14 simplex fuel nozzles and two igniter plugs comprise the combustion system. Engine accessories are grouped on the rear of the engine.
HORSEPOWER	750 Shaft Horsepower
TIME BETWEEN OVERHAUL	4,000 Hours (Hot Section Inspection interval 1,500 hours). Can be extended to 6,000 hours under a Pratt & Whitney Service Program.

Propeller

NUMBER OF PROPELLERS	1
MANUFACTURER	Hartzell Propeller Incorporated
PROPELLER MODEL NUMBER	HC-B3TN-3D/T10282NS+4
PROPELLER TYPE	Constant speed, full feathering and reversible
NUMBER OF BLADES	3
PROPELLER DIAMETER	Maximum 106 in (269 cm) Minimum 106 in (269 cm)
PROPELLER ANGLES	Feathered 86.30 Low Pitch 18.50 Maximum Reverse -8.10
TIME BETWEEN OVERHAUL	3,000 Hours or 5 years whichever occurs first

Fuel

FUEL CAPACITY – Long Range

TOTAL CAPACITY	1,288 litres (2,267 lb, 340.3 US Gallons)
TOTAL USEABLE	1,256 litres (2,210 lb, 331.8 US Gallons)

TANK	TOTAL CAPACITY	UNUSABLE FUEL	USABLE
FRONT LEFT TANK*	183.4* litres, 323* lb, 48.4* US gallons	3.4 litres, 6 lb, 0.9* US gallons	180 litres, 317 lb, 47.6 us gallons
FRONT RIGHT TANK	182 litres, 320 lb, 48.1 US gallons	2.0 litres, 3.5 lb, 0.5 US gallons	180 litres, 317 lb, 47.6 US gallons
REAR LEFT TANK	461.3 litres, 812 lb, 121.9 US gallons	13.3 litres, 23.4 lb, 3.5 US gallons	448 litres, 788 lb, 118.3 US gallons
REAR RIGHT TANK	461.3 litres, 812 lb, 121.9 US gallons	13.3 litres, 23.4 lbs, 3.5 US gallons	448 litres, 788 lb, 118.3 US gallons
TOTAL	1,288 litres, 2,267 lb, 340.3 US gallons	32 litres, 56 lb, 8.5 US gallons	1,256 litres, 2,210 lb, 331.8 US gallons

* Includes 26 litres (45 lb, 6.8 US gallons) of fuel in sump tank

APPROVED FUELS*

Jet A/A1 (ASTM D1655	
Jet B (ASTM D1655)	
JP-4 (MIL-T-5624)	Contains fuel system ice inhibitor
JP-5 (MIL-T-5624)	Contains fuel system ice inhibitor
F-40 (NATO Code)	Contains fuel system ice inhibitor
F-34 (NATO Code)	Contains fuel system ice inhibitor
F-44 (NATO Code)	Contains fuel system ice inhibitor

Weights

MAXIMUM CERTIFIED WEIGHTS

MAXIMUM CERTIFIED TAKE-OFF WEIGHT	7,500 lb	3,401 kg
MAXIMUM CERTIFIED LANDING WEIGHT	7,125 lb	3,231 kg

AIRCRAFT WEIGHTS

BASIC EMPTY WEIGHT	3,600 lb	1,632 kg
MAXIMUM USEFUL LOAD*	3,700 lb	1,678 kg

*Will vary with basic empty weights

Cabin & Entry Dimensions

CABIN WIDTH (Maximum width)	52 in	132 cm
CABIN LENGTH (Measured from behind pilot's seat to rear cabin bulkhead)	158 in	401 cm
CABIN HEIGHT (Maximum height)	56 in	142 cm
ENTRY WIDTH (Varies depending on door type)	48.75 in	123.82 cm
ENTRY HEIGHT Front of Door Frame Rear of Door Frame	 45.25 in 39.75 in	 114.93 cm 100.33 cm
SILL HEIGHT (Oleos fully extended)	44 in	112 cm
CABIN VOLUME	240 cu ft	6.80 m^3
DISTANCE CARGO DOOR TO HORIZONTAL STABILISER	121.75 in	309 cm
CARGO POD VOLUME	70 cu ft	1.98 m^3

Specific Loadings

WING LOADING	24.56 lb/ft^2
POWER LOADING	10 lb/shp

Wing

DIHEDRAL CENTRE WING	0°
DIHEDRAL OUTER PANELS	8°
INCIDENCE	2°

Landing Gear

TYPE	Non retracting, nose wheel steering
NOSE WHEEL STEERING RANGING	20 degrees to the left and right of neutral
MAIN TYRES	8.50 10”
NOSE TYRES	8.50 x 6”

SECTION 3 : BASE AIRCRAFT STANDARD EQUIPMENT

3.1 POWER PLANT

Pratt & Whitney PT6A-34 750 SHP Engine
Engine Support, Vibration Isolation
Oil Cooler – High Capacity
High Energy Ignition System
Chip Detector and Warning System
External Compressor Water Wash Adapter
Filter, Integral, Full Flow Oil
Cowls – Upper (with access panel) and Rigid-Mounted Lower (quick removable)
Inertial Particle Separator and Annunciator Light
Overspeed Governor
Fuel Environmental Collector Tank
Hartzell 3 Blade Propeller - Metal, Constant Speed, Full Feathering and Reversible
Propeller Governor
Propeller Spinner and Backplate – Polished
Shielding, Engine Ignition
Exhaust Covers, Engine Intake Blank and Propeller Restraint

3.2 FUEL SYSTEM

Four Integral Fuel Tanks – Fuel Cap Access on Each Tank
Capacitance Fuel Measuring System in Each Tank
Tank Drains with Fuel Sampler Cup
Airframe Fuel Filter with Quick Drain
Fuel Pump – Auxiliary (electric)
Fuel Pump – Engine
Fuel Reservoir with Quick Drain
Jet Pumps
Fuel Shut Off Valve
Fuel Pressure Warning System
Filter Restriction Warning System
Low Fuel Level Warning System
Fuel Heater

3.3 OIL OPTIONS (PWC SB 1001R23 details the approved oils)

AeroShell Turbine Oil 750
Or Mobil Jet Oil II
Or BP Turbo Oil 2380
Or Mobil Jet Oil 254 – 3rd Generation

3.4 ELECTRICAL POWER

Battery – 24 Volt, Sealed Lead Acid (forward mounted on firewall)
Circuit Breakers and Combination Switch/Circuit Breakers
Generator Control Unit – 80 amp Output
Generator Switch – Reset Function
Generator Warning System
Ground Service Power Receptacle
Starter Generator – 200 amp
Volt/Ammeter – Digital, High Volts Warning, Discharge Warning
Master Switch
Ignition Switch
Voltage Regulator

3.5 BRAKES

Brakes – Hydraulic Wheel, Toe Operated
Park Brake

3.6 AVIONICS – BASIC

Audio Panel – Garmin GMA 340
Transponder – Garmin GTX-345 (Mode S)
Avionics Master Switch
Avionics Cooling Fan – Includes Demister
Emergency Locator Beacon (Artex)

3.7 FLIGHT CONTROLS

Control Cables – Corrosion Resistant Steel
Conventional Manually Operated Ailerons, Rudder and Elevator
Dual Flight Control Columns (right column is removable)
Lock – Ailerons and Elevator Controls
Lock – Engine Controls, Friction
Powerplant – Quadrant Type Controls
- Engine Condition
- Engine Power, Primary
- Engine Power Back-Up for Primary Fuel Control
- Propeller Speed and Feather

Trim System – Aileron, Electric
Trim System – Elevator, Electric and Manual Back-Up
Trim System – Rudder, Manual
Wing Flaps – Electric

3.8 FLIGHT INSTRUMENTS (OPTION of ANALOGUE or G600TXi EFIS)

Airspeed Indicator
Altimeter – Dual inches / millibars
Gyros - Attitude and Directional
Outside Air Temperature Indicator – Digital (Celsius or Fahrenheit)
Magnetic Compass – Southern Field or Northern Field
Turn and Bank Indicator, Electric
Vertical Speed Indicator
Warning Lights
Pitot System, Heated
Static System, Heated
Clock – Digital, Two Time Zones, Stop Watch

3.9 ENGINE INSTRUMENTS (Option for MVP 50)

Fuel Computer – Fuel Pressure, Fuel Flow, Fuel Remaining, Fuel Used, Time to Empty
Fuel Quantity Indicators – Digital (pounds or litres)
Gas Generator Indicator, Digital/Analogue, Flight Timer and Tach Timer
Inter-Turbine Temperature Indicator, Digital/Analogue
Oil Pressure and Temperature Indicator Digital/Analogue
Oil Pressure Warning Light
Percent Engine RPM Indicator
Propeller Speed Indicator – Digital/Analogue
Hobbs Meter

3.10 ENVIRONMENTAL

Defroster – Windshield (pilot and co-pilot)
Heating System – Cockpit (bleed air type)
Soundproofing
Ventilation System – Cockpit (ram air)
Ventilation System – Passenger (ram air)

3.11 INTERNAL LIGHTING

Annunciator Panel
Switch and Circuit Breaker Panel
Dimming Controls with Circuit Breakers
Overhead Light
Instrument Post Lights
Cabin Lighting – Overhead Aisle

3.12 EXTERNAL LIGHTING

Landing RH – Wing Leading Edge
Navigation Lights (3) – Wing Tip and Tail
Strobe Lights (2) – Wing Tip
Taxi RH – Wing Leading Edge
Strobe Light - Fin

3.13 INTERIOR

Seats – Pilot and Co-Pilot, Adjustable, Integral Lap and Shoulder Harness with Inertial Reel
Crash Axe
Fire Extinguisher
First Aid Kit
Glare Shield
Pilot's Operating Handbook
Instrument Panel – Metal
Map / Glove Compartment
Flight Manual Stowage
Seat Rails and Cargo Tie Down Points
Cabin Windows
Corrosion Proofing
Plywood Floor (optional lonplate covering)
Paint – cockpit grey top coat, cabin white top coat
Linings

3.14 EXTERIOR

Bonding Straps – Control Surface (Aileron, Elevator and Rudder)
Corrosion Proofing – External
Crew Entry Doors
Jacking Points – Fuselage and Adjacent to Main Landing Gear
Landing Gear Main – Fixed
Landing Gear Nose – Fixed Steerable
Tyres and Tubes – 8.5 x 10" Main, 8.5 x 6" Nose
Tie Down Points – Wing and Tail
Stall Warning System
Tow Bar Attach Bracket with Tow Markings
Door – Either Passenger / Cargo Door or Clear Lexan Roller Door (for skydiving configuration)
Cargo Pod Provision
Paint – Primed and Painted in One Base Colour

3.15 FUSELAGE

Aluminium Alloy Frames, Longerons, Stringers and Skin Panels Riveted Together

Lightening Protection System

3.16 WINGS

Alloy Construction

Single Element Spar with Spar Doubler

3.17 FIN & RUDDER

Alloy Structure

3.18 HORIZONTAL STABILIZER

Alloy Structure

SECTION 4 – INSTRUMENTATION / AVIONICS OPTIONS

4.1 Primary Flight Panel & Electrical Options

ITEM	DESCRIPTION	NUMBER
Assigned Alt. Ind.	Assigned Altitude Indicator	11-80079-4
Wander Light	Light, Cockpit, Overhead, Adjustable	
EHSI Electronic Horizontal Situation Indicator	Sandel SN3500 EHSO SN5400 Install Kit SG102+MT 102LIT	90165 90143-1K 90222-A
CDI Course Deviation Indicator	Garmin GI 106A CDI & Install Kit CI 106A CDI CI 016A Install Kit for CDI	013-00049-00 013-00049-11 013-00050-10
ADF Automatic Direction Finder	Honeywell KR 87/KI 227 Digital ADF & Slaved Ind Sys KR87ADF KR 87 Install Kit ADF Indicator KI 227 Install Kit KA 0061	KR0087-17 066-01072-0004 050-01756-0003 066-03063-0001 050-01808-0000 071-01234-0000
DME Distance Measuring Equipment	Honeywell KN 62A DME SC + new KA 0061 KN 0062A Inst Kit DME SC PLUS KA 0061	KN 0062A-14 050-01611-0001 066-01068-0004 071-00221-0010
Auto Pilot	S-Tec System 55X, Automatic Trim	
Garmin GTN650	Garmin 650 10W COM or 16 W COM SD card with Databases GTN 650 Install Kit Pilot's Guide Cockpit Reference Guide	
GNS 530W TAWS	Garmin GNS 530W TAWS	
Garmin SL30 Radio Transceiver		
Garmin SL40 Radio Transceiver		
HF Radio	Bendix King HF 1050-4	
Weather Radar	Honeywell ART 2000 Weather Radar plus KMD 0850 Multi Function Display Honeywell, ART 2000 Sensor, 10" Antenna Without Display AA 2010V 10" Antenna ART 2000 ART 2000 Install Kit Honeywell, Multi Function Display SC BEZ ATL DB W/WX Module KAC 0501 WX Radar Module KMD 0540 Multi Function Display SC KMD 0540 Install Kit Manual – Getting Started	 RDR 2000-05 071-01549-0100 071-01519-0101 050-03088-0000 KMD 0850-23 071-00159-0111 066-04035-1301 050-03605-0000 006-18223-0000

ITEM	DESCRIPTION	NUMBER
	Manual – KMD 540 Pilot's Guide	006-18222-0000
	Manual – WX Radar Pilot Guide Supplement	006-18235-0000
	Database Card Alternatives	
	KMD 0540 Americas Database	0721-00161-0101
	KMD 0540 Pacific Database	0721-00161-0102
	KMD 0540 Atlantic Database	0721-00161-0103
Radar Altimeter	Honeywell KRA 405B ALT 28V BLK	KRA 0405B-14
	KRA 0405B Radar Altimeter	066-01153-0101
	KRA 0405B Install Kit	050-03365-0000
	KNI 0415 Indicator (28v) BLK	066-03031-0001
	KNI 0415 Indicator Kit Crimp	050-01401-0002
	KA 0054A Antennas (2 req'd)	071-01501-0000
	KA 0054A Install Kid KA 0054A	050-02960-0000

4.2 Secondary Flight Panel & Electrical Options

ITEM	DESCRIPTION	NUMBER
Airspeed Indicator	(2nd Instrument)	EA 5172-6L
Altimeter	(2nd Instrument)	5934PAD-3A186
Turn & Bank Indicator	(2nd Instrument)	1234T100-3TZ
Directional Gyro, Electric	(2nd Instrument)	RCA 15BK-1
Artificial Horizon, Electric	(2nd Instrument) – Mid Continental	4300-311
Vertical Speed Indicator		7030-C103

4.3 Additional Flight Panel & Electrical Options

ITEM	DESCRIPTION	NUMBER
Seats, Passenger Basic	Aerotwin, Seats, Leather, Fold Away, Standard, Albuquerque Colour, Set of 8	11-16013-2 BASIC
Engine Trend Monitor – CDU	Perkins Technologies DAAM Enhanced Aircraft Monitoring System	11-04767-1
Engine Trend Monitor – Status Panel with Plug-In Display Unit	Perkins Technologies DAAM Enhanced Aircraft Monitoring System	11-04767-1
Engine Trend Monitor	Altair P&WC Engine Trend Monitor	11-80701
Satellite Tracking	"TracPlus" Global Tracking System	11-04757-1

ITEM	DESCRIPTION	NUMBER
Press To Talk, R/H	Press to Talk switch on RH Instrument Panel	11-82025-1
Public Address System	CD/MP3 Player (PS Engineering PCD 7100), includes Four x ceiling mounted speakers	11-82023-4
28V DC Power Source	Single 28VDC Outlet - LH Instrument Panel	11-81093-1
28V DC Power Source	Single 28VDC Outlet - RH Instrument Panel	11-81093-2
12V DC Power Source	Single VDC Outlet - RH instrument panel	11-81093-3/5
12V DC Power Source	Dual 12VDC Outlet - RH Instrument Panel	11-81093-4

SECTION 5 – ADDITIONAL OPTIONAL EQUIPMENT

5.1 PASSENGER / UTILITY CONFIGURATION

ITEM	DESCRIPTION	NUMBER
Seats, Passenger Basic	Aerotwin, Seats, Leather, Fold Away, Standard, Albuquerque Colour, Set of 8	11-16013-2 BASIC
Seats, Passenger Deluxe	Aerotwin, Seats, Leather, Foldable*, Deluxe, Albuquerque Colour, Set of 8	11-16013-2 DELUXE
Ladder, Passenger & Skydive Step	Removable Passenger Ladder Fitted to Skydive Step	11-19903-5 & 11-17017-1
Steps, Crew Access, Set (Upper & Lower)	Port & Starboard, Upper and Lower	11-92301-1 & 11-92302-1
Steps, Crew Access, Set (Upper Only)	Port & Starboard, Used in Conjunction with Cargo Pod Toe Holds	11-92301-2
Cargo Pod	70 Cubic Feet, Includes Divider Nets & Toe Holds	11-95001-1
Partition, Cockpit / Cabin	Located Behind Pilot & Co-Pilot, Includes Douglas Seat Track at Window Sill Height	11-95101-6 & 11-95105-2
Wall Mounted Cargo Track	Douglas Seat Track, Window Sill Height, Available with Cabin Moulded or Metal Linings	11-95105-2
Cargo Nets	Set – 1 x Cargo Net, 1 x 6” x 100” Cargo Strap, 1 x 12” x 40” Cargo Strap	11-83021-2
Stowage Compartment	Rear Cabin, 9 Cubic Foot Stowage Compartment, Includes Restraining Net	11-04705-1

*Deluxe passenger seats are foldable however are not as compact as the Standard Passenger Seats when stored.

5.2 SKYDIVE CONFIGURATION

ITEM	DESCRIPTION	NUMBER
Grab Rails, External & Internal	Steel Tube Internal Rails, Alloy Tube External Rails	11-19905-2 & 11-19907-1
Step, Skydive	Aluminium Alloy, Step Extends Entire Width of Skydive Door Opening	11-19903-5
Lights, Jump	LED Lights, Located at Rear Door	11-81099-4
MIC Jack	Located at Rear Door	11-82039-1B
Partition, Skydive	Located Behind Pilot Only	11-18019-1

5.3 ENVIRONMENTAL

ITEM	DESCRIPTION	NUMBER
Oxygen, Crew	Aerox 2 M System, Bottle, Removable, Nasal Style Masks	11-85061-1
Heating, Cabin	Floor Ducts	11-74007-1
Air Conditioning, Cabin	Air Conditioning System for Cabin, Engine Driven, 36,000 BTU, Ducted	11-74401-1
Vented Air, Cabin	Fan Forced Ducted Air	

5.4 MISCELLANEOUS

ITEM	DESCRIPTION	NUMBER
Four Bladed Propeller	Hartzell, HC-E4N-00170S Metal Four Bladed Prop, Additional Cost for Fitting Four Bladed Prop in Place of Standard Three Bladed Prop	XL PROPELLER – 4 BLADE
Flooring, Lonplate	Lonplate, Heavy Duty Vinyl, Grid Plate Pattern, Gunmetal Colour #164, Applied to 6mm Plywood Floor	LON164
Abrasion Protection, Stabiliser	Clear High Impact Resistant Lexan	12-30007-1
Stone Deflectors, Standard Landing Gear Nose Only	Stone Deflectors for Nose Landing Gear Only – Standard Tyre	
Stone Deflectors, Standard Landing Gear Mains Only	Stone Deflectors for Main Landing Gear Only – Standard Tyre	
Wide Tyre Installation – Main Landing Gear Only	Installation of Goodyear 29.00 x 11.00-10 Tyre, Improves Soft Ground Performance, Gives at Least a 46% Increase in the Tyre Footprint, Tyre can be Inflated to a Pressure of Between 23 and 28 PSI	INST MLG WIDE TYRE
Wide Tyre Installation, Nose Landing Gear Only	Replaces Standard Nose Landing Gear	
Stone Deflectors, Wide Tyre Main Landing Gear Only	Stone Deflectors for Main Landing Gear Only – Wide Tyre	
Survey Camera Hole	Located Rear of the Spar, Camera Aperture Diameter 12.81”, Other Sizes Available on Request, Camera Field of View of 112° Restricted by Port Main Undercarriage, External and Internal Hole Covers Options Available to Suit Requirements, Also Able to Fit a LIDAR System – can be Either Factory Installed Pre-CoA or as an STC. Note: No Passenger Seats can be Installed to Internal Cover	11-86013-1 & 11-86017-1

5.5 AIRCRAFT FINISH

ITEM	DESCRIPTION	NUMBER
Walkways on Wing	Left & Right Side, Lerx Grip	11-92309-1 & 11-92309-2
Walkways on Wing	Left & Right Side, Lerx & Wing Root Grip	11-92309-1, 11-92309-2 11-92309-3 & 11-92309-4
Custom Paint	Custom Paint Scheme – as per customers requirements	
Stripes, Vinyl	Twin Stripes, Swish Style, 3M Vinyl, Colour Options Available	XSTOL STRIPES ONLY

SECTION 6 – AIRCRAFT DESCRIPTION

6.1 AIRFRAME

The simplicity and robust nature of the P-750 XSTOL structure results in unequalled reliability and maintenance down time.

The P-750 XSTOL is an all metal, riveted, stressed skin construction with a single cantilever low wing and tricycle undercarriage. The single engine is attached to a welded tubular steel mount. Immediately aft of the firewall is the cockpit section designed to accommodate up to two pilots side-by-side with access via hinged doors on either side of the cockpit.

Aft of the cockpit the semi-monocoque construction fuselage provides a main cargo area. The fuselage structure comprises aluminium alloy frames, Longerons, stringers and skin panels riveted together to form the monocoque structure.

The empennage comprises a vertical fin, rudder, manually operated rudder trim, horizontal stabilizer, elevator, electrically operated elevator trim with a manual over-ride, dorsal fin and ventral fin.

The wing comprises a centre wing with left hand and right hand outer panels. The wing is a high lift wing with a constant chord and a constant aerofoil section, excluding the root extension. The centre wing has no dihedral whilst the outer panels have a dihedral angle of 8°. An incidence angle of 2° is maintained throughout the span. The centre wing houses the four fuel system storage tanks which are integral with the structure. Mating of the centre wing to fuselage is at the one piece main beam and the split rear beam. The outer panels are attached fore and aft to the centre wing and are terminated at their extremities with fibreglass tips which contain the navigation and strobe lights.

Single slotted flaps are fitted at the trailing edge of the centre wing span. Conventional ailerons with balance tabs on both ailerons and an electrically operated trim on the left hand aileron are attached to the outer panels.

6.2 FLIGHT CONTROLS

Conventional manually operated flight controls comprising rudder, elevator and ailerons are fitted to the P-750 XSTOL. Flight control movement is achieved through movement of a control column in either the left or right pilot position. The right hand control column is removable. There is a rudder/aileron interconnect comprising a spring connecting the rudder steering torque tube and control column.

The aileron system comprises cables, quadrants, push rods and torque tubes. Primary stops are located on the wing and secondary stops on the base of the control column. The ailerons are fitted with balance tabs. An electrically operated trim tab is fitted to the left hand aileron. The trim position is indicated in an instrument in the centre of the instrument panel.

The elevator is controlled by fore and aft movement of the control column. Movement of the control column operates the elevator bellcrank by means of tensioned cables running in pulleys. Travel limits are determined by adjustable stops. The primary stops are located in the right hand side of the cockpit wall. The secondary stops are located in the tailcone. An electric trim tab is fitted on the trailing edge of the elevator and is controlled by fore and aft movement of a switch on top of the control column. A manually operated over-ride trim is provided and is operated by a handle mounted above the pilot's seat position. The trim position is indicated in an instrument in the centre of the instrument panel. A trim interrupt switch is located in the pedestal in the centre of the cockpit. The red coloured switch when moved forward will isolate electrical power to the elevator trim in the event of an un-commanded movement of the elevator trim.

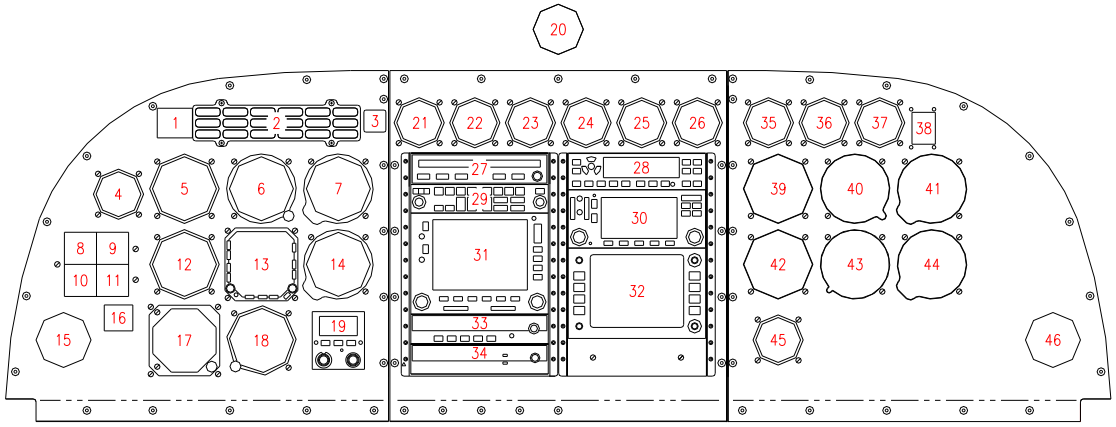
The rudder and nose wheel steering control are linked together at the nose wheel steering tube which is connected to the "pendulum" mounted pedals by adjustable push rods and to the rudder torque tube by tensioned cables. Travel limits are determined by adjustable stops which contact the rudder aft bellcrank and fixed stops on the rudder pedals. The geometry of the nose wheel steering linkage ensures that the rudder and nose wheel steering are only connected when the aircraft is on the ground, i.e. when the nose leg is wholly or partially compressed. As the nose leg extends the steering is progressively reduced, when full extension is reached the nose wheel locks in the centred position and the pedals control the rudder. A manual rudder trim is fitted and is controlled by movement of a wheel located in the overhead panel above the pilot's seat position. The trim position is indicated in an instrument in the centre of the instrument panel.

6.3 INSTRUMENT PANEL – ANALOGUE OPTION (NOTE: G600TXi Option Available)

The instrument panel example as shown below is divided into four general areas: left hand flight panel, right hand flight panel, avionics panel and engine and fuel systems instrument/annunciator panel. The instrument panel includes both standard and optional equipment. The left hand panel contains the minimum flight instruments required for flight with space to accommodate additional optional instruments and equipment. The right hand flight panel is available for fitment of optional flight instruments and equipment.

The annunciator panel is mounted in the instrument panel and provides an indication to the pilot of the status of various aircraft systems. The annunciator panel is fitted with a day/night dimming capability and a press to test facility.

A control lock capability is provided. The control column lock fits to the left hand column and lower switch panel and when in place it covers the aircraft MASTER switch preventing aircraft operation. The control lock is removed and stowed when not in use.



KEY

1	Annunciator Panel Switches	17	Radar Altimeter	33	Automatic Direction Finder
2	Annunciator Panel	18	Course Direction Indicator	34	Distance Measuring Equipment
3	Voice Annunciator	19	HF Radio	35	Fuel Contents Indicator Front Tanks
4	Clock	20	Compass	36	Fuel Contents Indicator Rear Tanks
5	Air Speed Indicator	21	Torque Indicator	37	Outside Air Temperature Indicator
6	Artificial Horizon	22	Np Indicator	38	Emergency Locator Beacon Switch
7	Altimeter	23	ITT Indicator	39	Air Speed Indicator
8	Aileron Trim Indicator	24	Ng Indicator	40	Artificial Horizon
9	Elevator Trim Indicator	25	Oil Temperature/Pressure Indicator	41	Altimeter
10	Rudder Trim Indicator	26	Fuel Pressure/Flow Indicator	42	Turn and Bank
11	Flap Indicator	27	Autopilot	43	Directional Gyro
12	Turn Coordinator	28	Transponder	44	Vertical Speed Indicator
13	Electronic Horizontal Situation Indicator	29	Audio Panel	45	Volt/Ammeter
14	Vertical Speed Indicator	30	Nav/Comm/GPS GTN650 (1^{st})	46	Cabin Air Vent
15	Cabin Air Vent	31	Nav/Comm/GPS GTN650 (2^{nd})	47	Engine Condition Trend Monitoring
16	EHSI Slaving Control Switches	32	Weather Radar		

6.4 FLIGHT INSTRUMENTS

The following instruments are located in the instrument panel and fitted as standard equipment:

- Airspeed Indicator
- Artificial Horizon
- Altimeter
- Turn and Bank Indicator
- Directional Gyro
- Vertical Speed Indicator
- Course Direction Indicator
- Clock
- Outside Air Temperature Indicator

6.5 AUTO PILOT

An S-TEC 55X auto pilot is available and readily integrated with a KCS 55A Remote Compass System and Garmin avionics.

6.6 GROUND CONTROL

Ground control is achieved using the rudder pedals which are connected to the nose wheel. Moving the rudder pedals left and right will turn the nose wheel in the natural sense.

6.7 WING FLAPS

The single slotted flaps, which span the centre wing either side of the fuselage are electrically operated and driven. The flaps are extended and retracted by positioning the flap control lever located in the centre pedestal. The selector has a 20° and 40° position. An indicator located in the centre of the instrument panel indicates the flap position. The flaps electrical system is protected by a circuit breaker. A red warning light will illuminate in the Annunciator panel when the electrical power supply to the flaps fails. There is a micro-switch in the flap system to detect any flap asymmetry situation. The micro-switch will disconnect power from the flap system to prevent flap asymmetry in the event of a mechanical failure in the flap system.

6.8 LANDING GEAR

The fixed tricycle landing gear comprises two main wheel assemblies to the centre wing and a steerable nose wheel assembly attached to the firewall. A shimmy damper is fitted to the nose undercarriage. All units incorporate an oleo pneumatic shock strut. Brakes are fitted to the main assemblies only.

The main landing gear shock struts are attached to heavy duty castings forming part of the centre wing structure at the intermediate rib positions. The strut charging valves pass through the upper skin panels and are accessible from the top of the wing. Shock strut cylinders are divided into two chambers, the lower chamber in which the piston operates is separated from the upper chamber by a baffle with a metered orifice to control the fluid displaced by the piston movement thus providing the damping effect.

A detachable bearing with inner and outer 'O' ring seals and a scraper ring is located in the base of the lower chamber to act as a guide and provide external sealing for the piston. The scraper ring protects the piston seal from damage that could be caused by foreign material adhering to the exposed portion of the piston. Steel sockets at the lower end of the pistons provide attachment for the wheel axles and brake anchor plates. The lower arms of the torque links are bolted by brackets to the sockets whilst the upper arms are attached to alloy lugs at the base of the cylinders. A nylon bumper pad is set into each of the upper arms to contact the pistons and limit their extension when the wheels are clear of the ground.

The nose landing gear is located between two reinforcing angles on the forward face of the firewall. The steerable nose wheel is actuated by a steering post and mechanical linkage attached to the piston. With weight on the nose wheel the linkage assumes a geometric configuration through which direct control of the nose wheel is achieved by rotating the steering post by means of pushrods connected to the rudder pedals. When weight is removed, as in flight, the linkage extends disengaging the steering, locking the wheel in a line of flight position and freeing the rudder pedal for control of the rudder only. Bolted to an alloy socket at the base steering post which in turn is supported at its lower end to the shock strut cylinder in a trunnion type bearing. The top of the steering post is located in a bearing attached to the rear face of the firewall. A nylon bumper pad is set in the lower portion of the linkage to limit the extension of the piston when the wheel is clear of the ground, in addition as a safety feature in the event of a linkage failure, two cables are connected between the cylinder and the nose wheel fork to prevent the nose wheel separating from the aircraft.

Brakes fitted to the main gear are hydraulically operated by applying toe pressure to the brake pedals incorporated in the top portion of the rudder pedal assembly. Rotation of either pedal actuates a master brake cylinder resulting in braking action to the disc brake unit on the corresponding wheel. Differential or simultaneous braking action can be achieved as desired.

A parking brake control knob is located in the pedestal in the centre of the cockpit. The parking brake is set by simultaneously depressing both the brake pedals, pulling and holding out the park brake knob, then releasing the brake pedals. The parking brake is released by depressing both toe brake pedals and pushing the parking brake control knob fully in.

6.9 COCKPIT

The P-750 XSTOL is equipped with two large 'gull wing' crew entry doors adjacent to the pilot and co-pilot seats. The doors open upwards with the assistance of gas filled struts and pivot on bearing blocks attached to the cockpit closure. Each door can be opened, closed, locked and unlocked from inside and outside the aircraft. A large acrylic sheet window is mounted in each door and attached to the structure by adhesive and locating screws. The aircraft is equipped with a two piece acrylic windscreen attached to the centre pillar and cockpit composite structure. Pilot and co-pilot seating is provided by comfortable Millennium leather clad seats which may be moved for and aft on a slide rail. The pilot and co-pilot seats are equipped with lap seat belts and shoulder harnesses which are mounted directly onto the seat and fitted to an inertia reel unit.

6.10 CABIN COMPARTMENT

The large cabin area provides comfortable space for up to 9 passengers or 17 skydivers and extends from the area immediately behind the pilot and front passenger seats to the rear bulkhead aft of the cargo door. Access to the cabin compartment is via the entry door located on the left hand side of the fuselage behind the trailing edge of the wing. The door space is approximately 50" wide and 47" high at the front and 41.3" high at the rear and may be opened, closed, locked and unlocked from both inside and outside of the aircraft. Two options are available for the cabin door – double cargo doors or a roller skydive door which can be opened and closed in flight. There are five windows on each side of the cabin with two being located in the cargo/passenger doors. Each window is made of acrylic sheet and attached to the structure by adhesive and locating screws.

Inside cabin dimensions are 56” high and 52” wide in front of the spar bulkhead location. The cabin narrows slightly toward the tailcone to 43” high and 47” wide just fore of the cargo door. Total length of the cabin from the cockpit to the aft bulkhead is 13 ft 16in. Total cabin volume aft of the pilot and co-pilot seat location is approximately 240 cubic feet. The cabin compartment floor is flat and has provision for passenger seats and cargo tie down points.

Passenger seats are equipped with lap seat belts and shoulder harnesses which are mounted directly on to the seat and fitted to an inertia reel unit.

6.11 CONTROL LOCK

A control lock capability is provided. The control column lock fits to the left hand control column and lower switch panel and, when in place, it covers the aircraft MASTER switch preventing aircraft operation. The control lock is removed and stowed when not in use.

SECTION 7 – PERFORMANCE

MAXIMUM OPERATING ALTITUDE	25,000 ft	6,096 m
STALL SPEEDS		
IAS at 7,500 lb	69 kts	
Flaps Up, Power Idle	58 kts	
Flaps Landing, Power Idle		
TAKE OFF		
Sea level, ISA, 7,500 lb (3,405 kg) MTOW		
Ground Roll	721 ft	220 m
Total To Clear 50ft	1,482 ft	451 m
CLIMB PERFORMANCE		
Sea Level at 7,500 lb (3,401 kg) MTOW Using Maximum Continuous Power		
Climb to 12,000 ft (3,658 m) from Brakes Release	12 minutes	
LANDING PERFORMANCE		
Maximum Landing Weight, Carrying Useful Load of 4,025 lb (1,827 kg)	360 ft	110 m
CRUISE		
10,000 ft, ISA +20	169 kts	
10,000 ft, ISA	168 kts	
RANGE (Optimum Speed at 16.000 ft)		
7,500 lb (3,401 kg) MTOW, includes fuel for start, taxi, take-off, climb, descent and 45 minutes reserve remaining after landing	1,179 nm	2,183 km
ENDURANCE		
7,500 lb (3,401 kg) MTOW, includes fuel for start, taxi, take-off, climb, descent and 45 minutes reserve remaining after landing	8 hours	
BEST RATE OF CLIMB	91 KIAS	
BEST ANGLE OF CLIMB	85 KIAS	
MAXIMUM DEMONSTRATED CROSSWIND	14 kts	

SECTION 8 – DESIGN

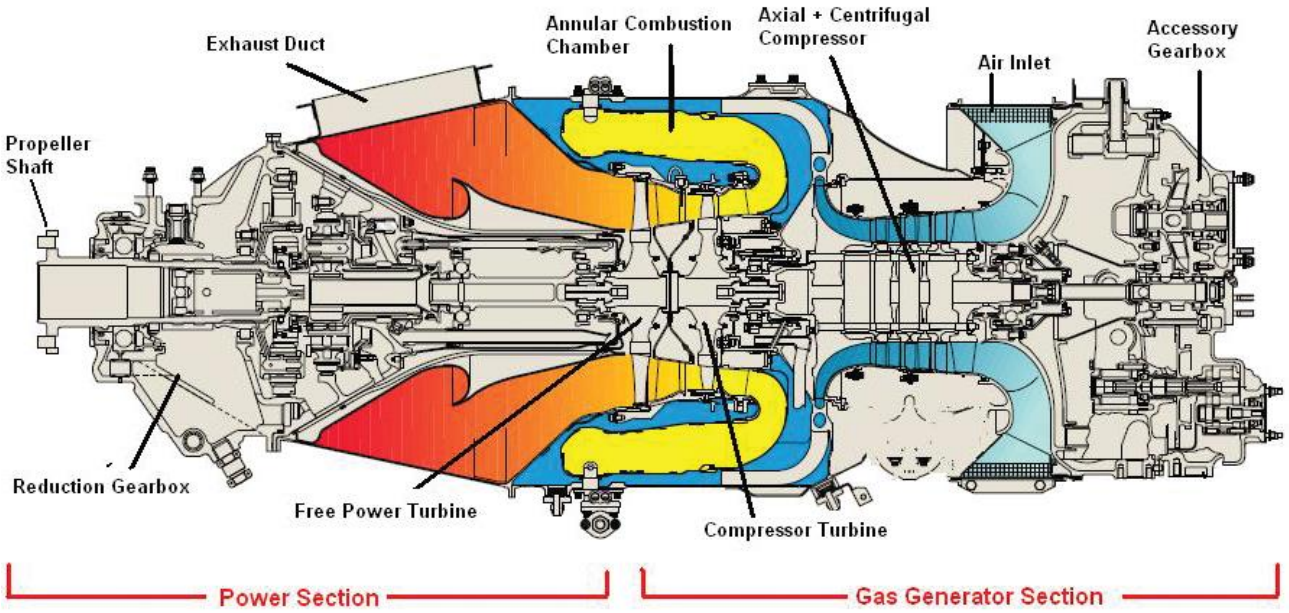
The P-750 XSTOL is certified to FAR Part 23 in the Normal Category.

8.1 DESIGN SPEEDS

MAXIMUM OPERATING SPEED	170 KIAS	
MANEUVRING SPEED	131 KIAS	
FLAP SPEEDS		
0-20 Degrees	120 KIAS	
21-40 Degrees	110 KIAS	
FLIGHT LOAD FACTOR LIMITS		
Flaps Up	+3.47 g	-1.39 g
Flaps Take-Off	+3.0 g	-0 g
Flaps Landing	+3.0 g	-0 g

8.2 ENGINE

The P-750 XSTOL is powered by a Pratt & Whitney Canada PT6A-34 750 shaft horsepower free turbine engine, utilizing two independent turbine sections: one driving the compressor in the gas generator section and the second driving the propeller shaft through a reduction gear box.



The air enters the engine through the inlet screen; it is then compressed by a multi-stage compressor and fed to the combustion chamber where it is mixed with fuel and ignited. The hot gas expands through two turbine stages; the first drives the compressor and the accessories; the second, mechanically independent from the first, drives the propeller shaft by means of a reduction gearbox. Finally, the hot gas is discharged through the exhaust ducts. The engine is self-sufficient since the gas generator driven oil system provides lubrication for all areas of the engine, pressure for the torque meter and power for the propeller pitch control. Three isolators or shock mounts attach the engine to a tubular steel engine mount assembly which is bolted to the firewall. The engine is enclosed by detachable

upper and lower cowls which are cut-away on the joint line (both sides) to provide clearance for the exhausts. The upper cowl has a panel which provides access to the oil dipstick and filler. The lower cowl contains an engine air intake and inertial separator at the front of the cowl and NACA ducts for the oil cooler (right hand side rear), ambient air supply to cockpit (ducts left and right forward of the exhaust pipes) and for accessories cooling (left hand side behind exhaust pipe). The cowl halves are held together by 8 lever cowl fasteners. Vents and drains for components of the engine are provided by pipes and hoses routed overboard from the engine compartment. The six pipes are located on the firewall behind the nose wheel.

The engine fuel system comprises an oil-to-fuel heater, fuel pump, fuel control unit, flow divider and dump valve, dual fuel manifold with 14 simplex nozzles, fuel drain valves and interconnecting pneumatic sense lines. In normal operation fuel from the aircraft tanks is drawn to the oil-to-fuel heater by the engine driven fuel pump. Heated fuel then flows to the engine driven fuel pump. The fuel pump delivers high pressure fuel to the fuel control unit. The fuel control unit determines the correct fuel schedule for engine steady state operation and acceleration and returns the unused fuel to the pump inlet. Metered fuel exiting the fuel control unit flows to the flow divider which supplied the metered fuel to the primary and secondary manifolds as required. Fuel is then atomized by the 14 simplex nozzles.

An environmental fuel container is mounted on the firewall and collects fuel drained from the compressor and combustion sections. A valve in the bottom of the container allows the container to be emptied. If the container is not emptied an overflow pipe allows fuel to drain on to the ground.

The engine lubrication system comprises an oil pump, integrally formed oil tank with the filler cap incorporating a dipstick, ports for the temperature and pressure sensing probes, an oil filter, chip detector and warning system, together with an airframe mounted oil cooler. The lubrication system provides a constant supply of clean oil to the engine bearings, reduction gears, accessory drives, torque meter and propeller governor. The oil tank is integrated in the engine air inlet casing. The oil is also an anti-corrosion agent for the steel bearings and gears. A chip detector is located in the reduction gear box to detect metal particles and warn of metal contamination.

The engine air inlet is located at the front of the engine nacelle below the propeller spinner. Ram air entering the inlet flows through ducting and an inertial separator system and then enters the engine through a circular lenum chamber where it is directed to the compressor by guide vanes. The compressor air inlet incorporates a screen which will prevent entry of large articles, but does not filter the inlet air.

The inertial separator system in the engine air inlet duct prevents moisture particles from entering the compressor air inlet plenum when in bypass mode. The inertial separator comprises two movable vanes and a fixed airfoil which, during normal operation, rout the inlet air through a gentle turn into the compressor air inlet plenum. When separation of moisture particles is desired, the vanes are positioned so that the inlet air is forced to execute a sharp turn in order to enter the inlet plenum. This sharp turn causes any moisture particles to separate from the inlet air and discharge overboard through the inertial separator outlet in the lower cowling.

The single quadrant housing the engine controls is located in the centre of the aircraft cockpit under the instrument panel and is accessible from the left and right seats. The power lever and fuel condition lever control the engine and the propeller lever controls propeller speed and feathering.. The levers are provided with an adjustable friction damper and are connected by push-pull cables to their respective engine components.

Engine indications are provided by a torque indicator, fuel computer, gas generator speed indicator, oil temperature and pressure indicator and inter-turbine temperature indicator. The indicators are digital with additional features such as flight timers, maximum indications held in memory and pilot programmable warning systems.

The ignition system comprises an ignition exciter box, two high tension leads, two spark igniters, an ignition monitor light in the annunciator panel, an ignition switch and a starter switch. Electrical energy from the exciter box, mounted on the left engine mount truss, is transmitted via two high tension leads to two igniters, at four and nine o'clock positions on the gas generator case adjacent to the fuel manifold. The ignition system is normally energized only during engine start. Ignition is controlled by one switch, located on the switch and circuit breaker panel.

The exhaust system provides the means of ducting the jet efflux to atmosphere clear of the engine compartment. The exhaust assembly comprises two stub pipes welded to two flanges and the assemblies are secured to the engine exhaust flanges by six corrosion resistant nuts and bolts to each assembly.

The engine starting system comprises a starter generator, a start switch, a start circuit breaker, a starter relay, a warning light and associated wiring.

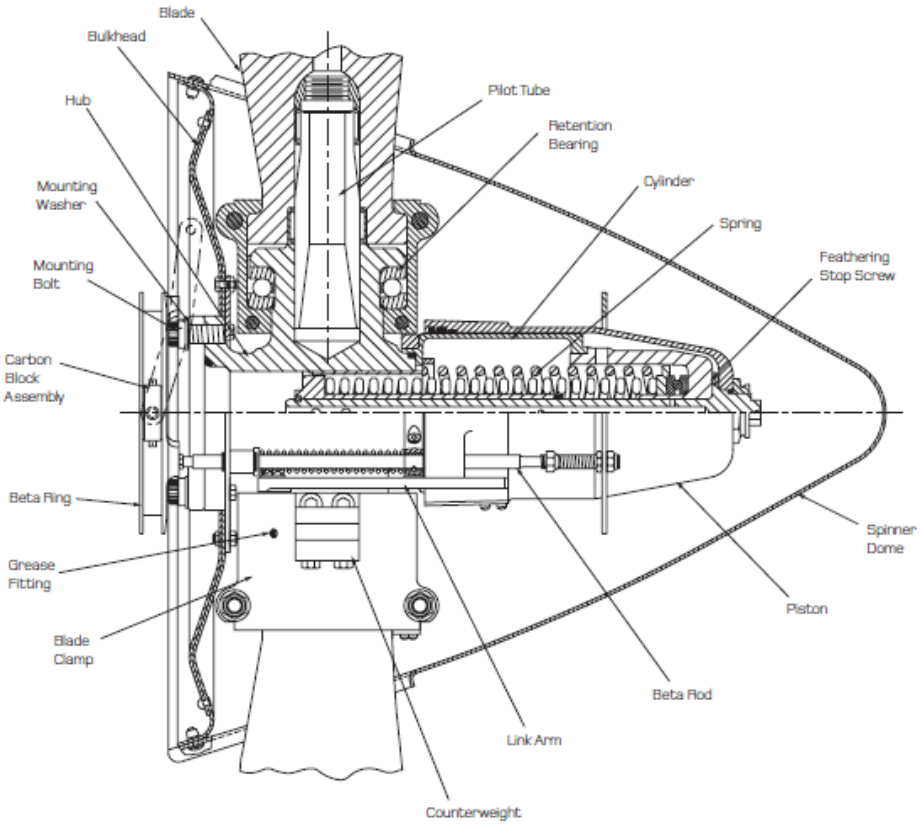
8.3 PROPELLER

The P-750 XSTOL is equipped with a three blade, Hartzell, constant speed, feathering and reversible pitch propeller, model HC-B3TN-3D/T10282NZ+4. The propeller uses a single oil supply from a governing device to hydraulically actuate a change in blade angle. The propeller blade angles are:-

Fine:	18.3°
Feather:	86.5°
Reverse Pitch:	-8.1°

While the propeller is operating, the following forces are constantly present: spring force, counterweight force, centrifugal twisting moment of each blade, and blade aerodynamic twisting forces. The spring and counterweight forces attempt to rotate the blades to higher blade angle, while the centrifugal twisting moment of each glade is generally acting toward lower blade angle. Blade aerodynamic twisting force is usually very small in relation to the other forces and will attempt to increase or decrease blade angle.

The propeller indicating system comprises an indicator, a circuit breaker, a tachometer generator and associated wiring. The propeller speed indicator is graduated as a percentage of the power turbine speed and is located in the centre of the instrument panel.

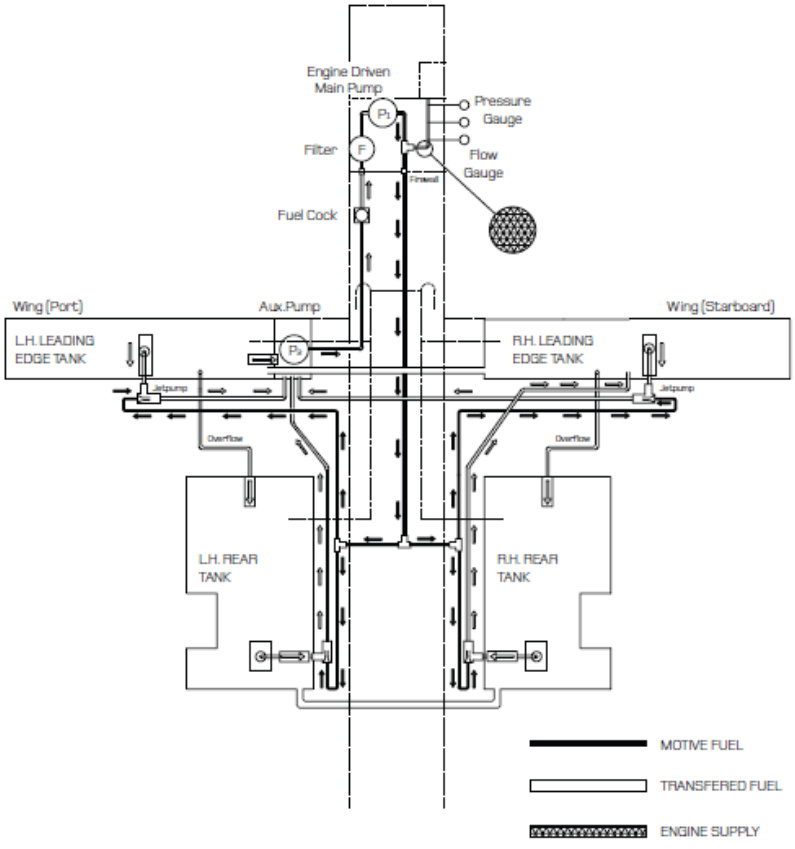


8.4 FUEL SYSTEM

The P-750 XSTOL fuel system is extremely simple. The system may be considered as two discrete systems integrated at the front sump tank. The design of the system is such that the front wing tanks are the primary tanks and the rear wing tanks the secondary.

The system includes the following components:

- Left and right hand front and rear wing storage tanks
- Front sump tank incorporated in left front wing storage tank
- One fuel filter
- Fuel shut off valve
- Electric fuel pump
- Jet pumps
- Fuel pressure warning and filter restriction warning system
- Fuel quantity indicating system
- Associated delivery / vent piping



Fuel is drawn from a 26 litre (6.8US gallon) sump tank incorporated into the left forward tank. During normal operations fuel is drawn from the tanks by a pump driven by the engine. During starting and emergency operation an electric auxiliary pump mounted in the sump tank provides fuel motive force. The quantity of fuel pumped is in excess of that required for engine operation. Fuel not required by the engine is circulated to each tank where it passes through jet pumps which uplift more fuel by venture-action. Fuel from each rear tank is fed forward to its corresponding side front tank where jet pumps draw fuel and deliver to the sump tank.

Operation of the fuel system is monitored by three warning systems. A red warning light marked in the annunciator lights panel which will illuminate should the system pressure fall to 2 psi + 10% psi. An amber warning light in the annunciator panel will illuminate should the pressure differential across the inlet and outlet ports of the fuel filter rise above 2.5 psi + 0.20 psi. A low fuel quantity light is also fitted. The system is vented by two pipes which connect front and rear tanks respectively before venting overboard through the fuselage lower surface under the cabin.

The contents of each wing tank is measured by a capacitance sensor and indicated on dual digital indicators in the instrument panel.

The wing fuel storage tanks comprise front and rear cells fabricated in the centre wing structure on the left and right hand sides of the fuselage. Each front tank is equipped on the upper surface with a filler aperture and cap and a quantity sensor, in the lower surface access panels, and drain points. Each rear tank is equipped on the upper surface with three access panels one of which incorporates the filler aperture and cap, in the lower surface are two drain points. A quantity sensor is mounted diagonally across the tank.

The fuel shut-off valve is located under the floor of the cockpit on the fuselage left side between the sump tank and the fuel filter. It is operated from a simple ON/OFF push/pull lever mounted on the control centre console.

8.5 ELECTRICAL SYSTEM

The electrical system is a 28 V DC single wire negative earth return system. Power is provided from two internal sources. The generator system, as a main source under normal conditions, and the battery system which is employed for engine starting and system operation when generator power is not available, (engine not running or generator is off line). Both systems feed a common bus bar. Control and monitoring of power from the two systems is by a MASTER switch, voltmeter and ammeter respectively. All circuits are protected by circuit breakers or fuses. Wiring is installed in open looms supported by clips and protected with sleeving where necessary. Wiring routed to the forward part of the engine compartment passes through stainless steel ducts to protect it from heat. Disconnect points are provided for the removal of all major components.

The battery system comprises a 24 V 43 amphere battery, a master relay and associated wiring. The system supplies power for engine start and operation of the electrical system when the generator is not running or has failed. The battery is isolated from the bus bar by the master relay (de-energised).

The generator system comprises a starter generator, a Generator Control Unit (GCU), a relay a GCU control switch marked GENERATOR, a circuit breaker, a generator warning light, associated wiring and terminal blocks. The GCU provides output voltage control, system over voltage protection and everse current protection for the generator and controls the generator output to 80 amps.

A generator/starter rated at 30 V DC – 200 amps is mounted on the engine reduction / accessory gear box module. It is a conventional four-pole shunt-field generator with interpoles and series auxiliary starting windings. The unit is cooled by a built-in fan.

A generator warning light is contained in the Annunciator panel. The light is connected to both battery and generator systems and will illuminate when the generator is off line.

A combined volt / ammeter is located in the centre of the instrument panel. The instrument comprises a HIGH VOLTS warning light, a DISCHARGE warning light, a mode switch and a digital display.

Ground power can be connected to the aircraft using the socket located on the left hand rear fuselage.

8.6 LIGHTING SYSTEMS

The combination navigation/strove beacon system comprises two wing tip light units, two fuselage strobe lights, a power supply unit, a navigating lights switch circuit breaker, a strobe lights switch circuit breaker and associated wiring. The left hand and right hand wing tip mounted light units combine the conventional red/green wing lights with flash tubes for the strobe lighting. A white navigation light is mounted on the tail of the aircraft. The navigation and strobe lights are controlled by using switches in the switch panel.

The landing light system comprises two 28 V 100 watt sealed beam lights, a switch/circuit breaker and associated wiring. The landing lights are located in the wing leading edge, inboard of the wing tip. The light assemblies are secured at three points by spring loaded screws which also provide angular adjustment. A pre-formed plexiglass cover is fitted over the unit.

The P-750 XSTOL is equipped with lighting for the instrument panel and pedestal. Lighting is controlled using a switch in the switch panel. Lighting intensity is controlled by the four knobs located on the pedestal.

8.7 CABIN VENTILATION

Ambient air is ducted from two NACA ducts located immediately forward of the right and left hand exhaust pipes. The air is directed through separate flexible ducts to the cockpit vents. The flow is controlled using either one or both of the cockpit ventilation controls located either side of the pedestal in the cockpit. Pulling the lever opens an aperture on the firewall which allows the air to flow in to the cockpit through the vent.

Optional air conditioning is available for the main cabin.

8.8 OXYGEN SYSTEM

A Scott Mark II, 22 cubic feet (14 lb), portable oxygen system is provided as optional equipment for the pilot. The system provides a manually variable flow of oxygen for two users to 16,500 feet or to 20,000 feet with optional accessories. The unit is mounted on the left cabin side wall just behind the pilot's seat and utilises nasal style masks.

8.9 PITOT STATIC SYSTEM

The pitot static system is comprised of a pitot head with pitot heat, mounted on the right hand wing tip, flush mounted static ports on either side of the rear fuselage, and drains located on the underside of the rear fuselage. The pitot static system supplied ram air pressure to the airspeed indicator and static pressure to the airspeed indicator, vertical speed indicator and altimeter.

The pitot heating system comprises an electric heating element, wh8ich is an integral part of the pitot tube and head assembly mounted on the right hand wing tip, and a switch/circuit breaker located in the switch panel in the cockpit, a warning light in the Annunciator panel and associated wiring.

8.10 STALL WARNING SYSTEM

The lift detector vane/switch, located in the right hand leading edge of the centre wing, operates the stall warning system to provide audible warning to the pilot of impending stall. The warning horn will sound approximately 5-10 knots above stalling speed. The horn is located in the overhead panel adjacent to the pilot's seat.

8.11 AVIONICS

The P-750 XSTOL can be configured with a wide range of avionics equipment. Crew intercommunication is through an audio panel and intercommunication unit with two sets of headphone jacks. A press to transmit switch is located on the control column. An optional fit comprises mounting the right hand press to talk on the instrument panel. An avionics master switch on the switch panel controls power to the radios.

8.12 CABIN FEATURES

A 0.9 kg (1.98 lb) portable fire extinguisher, axe and first aid kit is located between the pilot and front passenger seat.

8.13 EMERGENCY LOCATOR BEACON

An ARTEX emergency locator beacon is fitted to the aircraft. The system comprises a control unit located in the rear fuselage adjacent to the aircraft battery, an externally mounted antenna and an ON/ARM switch on the instrument panel.

8.14 CARGO POD

A large single-compartment (sub-dividable) Cargo Pod with 1,000lb (454kg) capacity with access via three side cargo doors and one large rear ramp is available.

8.15 CORROSION PROOFING

All metallic items have the appropriate corrosion coating applied.

SECTION 9 – TECHNICAL PUBLICATIONS

The following Technical Publications are available for the P-750 XSTOL aircraft:

Maintenance Manual
Pilot Operating Handbook
Illustrated Parts Manual

SECTION 10 – WARRANTY

The following Warranty conditions are applicable to the P-750 XSTOL aircraft:

1) In the event of any defect in any part fitted by Pacific Aerospace Limited in any of the products(other than any part specified in sub clause 2 hereof), being discovered within the period of twenty four (24) months after the relevant date of acceptance delivery date or before the expiration of five hundred (500) hours flying time whichever is the less and in the event of that defect being proved to be due to defective material or workmanship Pacific Aerospace Limited shall subject to the conditions hereinafter specified as expeditiously as is reasonably possible repair the defective part or at the option of Pacific Aerospace Limited supply a new part in place thereof, in either case free of charge to the Purchaser but Pacific Aerospace Limited shall not be liable for any direct or indirect loss or damage or any other claims howsoever arising out of any defect.

   If any such part is of an expendable nature with a normal warranty of less than twenty four (24) months the period of warranty for such part shall be the normal one to that part.

2) Pacific Aerospace Limited gives no warranty in relation to any of the products or parts of products not manufactured by Pacific Aerospace Limited except to the extent that a warranty is granted to Pacific Aerospace Limited by the manufacturer of the product.

   So far as is practicable Pacific Aerospace Limited undertakes to procure the assignment to the purchaser of the benefit of any rights which Pacific Aerospace Limited may have against the manufacturer of products or parts of products not manufactured by Pacific Aerospace Limited.

3) Warranty shall apply only to the defects notified to Pacific Aerospace Limited within thirty (30) days after discovery and are subject to the aircraft spares, supplies and parts having been used, handled, stored, maintained and operated in accordance with sound aviation practice, the limitations imposed by the flight performance envelope and the instructions issued by Pacific Aerospace Limited.

4) Warranty shall not extend to:

   a. Any aircraft or part which has been altered after delivery otherwise than by Pacific Aerospace Limited or with its written approval;

   b. Any part from which Pacific Aerospace Limited trademark or name or serial number has been removed;

   c. Wear and tear or any defect caused by negligence or misuse;

   d. Accessories supplied by the Purchaser.

5) For the purpose of this warranty a part of an aircraft shall not be regarded as defective because subsequent to delivery of the aircraft some modification or alteration thereof is required to be made by an Airworthiness Authority.

6) Notice of any alleged defect shall be given in writing to Pacific Aerospace Limited within thirty (30) days after discovery thereof and such notice shall contain detailed particulars setting out the nature and ground of claim.

   If so required by Pacific Aerospace Limited the Purchaser shall forthwith send to Pacific Aerospace Limited's factory the part alleged to be defective. Any part so sent shall be properly packed and marked with the name and full address of the Purchaser and Serial Number of the aircraft from which it is taken. Transportation costs of any such part shall be prepaid by the Purchaser and reimbursed by Pacific Aerospace Limited if such part is proven to be defective and so admitted by Pacific Aerospace Limited.

7) If any part is replaced by Pacific Aerospace Limited the original part shall be come the property of Pacific Aerospace Limited.

8) Warranty is restricted to the original Purchaser and shall not be assigned unless Pacific Aerospace Limited expressly consents in writing thereto.

9) Except for the warranty contained in sub-clause 1) of this clause all express or implied statutory or other warranties conditions or liabilities whether as to fitness or otherwise relating to the Products or any part thereof and whether arising in contract or by reason of negligence are hereby excluded for all time and the provisions hereof shall override any alleged representation or collateral agreement to the contrary except an agreement in writing signed by an authorised representative of each party hereto, provided that in the event that the aforesaid provision relieving the Company from liability for negligence should for any reason be held in effect give the remainder of this sub-clause and this Clause 9 shall remain in full force and effect.

SECTION 11 – OPERATING & MAINTENANCE COSTS

The P-750 XSTOL is designed and manufactured with ease of maintenance in mind. The maintenance cycle is every 150 hours or 1500 landings, whichever occurs first. The average estimated time to complete a 150 hour check is approximately 35 - 40 hours.

The following costs are based on a 5 year operation with the aircraft flying 750hr/yr and are ***indicative only***. Actual costs will depend upon local costs for fuel and labour and how the aircraft is being operated.

ITEM	**US$**		
Fuel [1]	220.00		
Engine & Airframe Scheduled Maintenance:			
Maintenance – Scheduled [2] *(Repairs, Consumables, Rotables)*	1.87		
Major Replacements *(Engine & Airframe Hoses, Control Cables, Fuel Nozzles, Flap Motor, Flap Tube)* [3]	31.91		
Vendor Items:			
Engine *(H.S.I, F.C.U ½ Life, F.C.U Overhaul, Prop Gov, Out of Phase)* [4]	59.99		
Propeller *(Overhaul / Calendar Check)* [5]	3.15		
Starter Generator[6] *(Brush Replacement & Overhaul)*	7.51		
Total Operational Cost Per Hour	**324.43**	(A)	
Total Cost Per NM:	**1.85**		
Fixed Cost of Use:	***Per Year***		***Per Hour***
Crew		(B)	
Insurance		(C)	
Cost of Ownership		(D)	
Total Operational Cost Per Hour (Sum of Lines A, B, C, D)			
Total Operational Cost Per NM			

Notes

1) US$4.50/Gallon
2) US$2,500.00–US$5,000.00 for 150hr inspection – US$3,250.00–US$6,500.00 for 300hr inspection
3) US$4,250.00 Engine Hose – US$215.00 Airframe – US$1,915.00 Control Cables – US$615.00 Flap Motor – US$3,000.00 Fuel Nozzles – US$255.00 Flap Tube
4) US$250,000.00 Overhaul – US$20,000.00 H.S.I – US$6,800.00 FCU ½ Life – US$8,200.00 Out of Phase / Maintenance
5) US$6,000.00 Overhaul at 3,000hrs or 5 year calendar
6) US$2,415.00 Brush Replacement/750hrs – US$6,435.00 Overhaul/1500hrs

NOTES

PACIFIC AEROSPACE

Pacific Aerospace Ltd, Private Bag 3027, Hamilton 3240, New Zealand
TEL +64 7 843 6144 FAX +64 7 843 6134
pacific@aerospace.co.nz www.aerospace.co.nz

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Please check the website www.aerospace.co.nz for any amendments and updates and to view photographs.